

# Notice of Allowability

Application No.

10/789,530

Examiner

Qamrun Nahar

Applicant(s)

YELLIN ET AL.

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 08/01/2007.
2. ☒ The allowed claim(s) is/are 1-10 and 12-20, renumbered 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 08/01/2007.
2. The objection to the specification is withdrawn in view of applicant's amendment.
3. The objections to claims 8, 15 and 18 are withdrawn in view of applicant's amendment and remarks/arguments.
4. The rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention to claims 9 and 19-20 is withdrawn in view of applicant's amendment.
5. The rejection under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter to claims 10-19 is withdrawn in view of Examiner's Amendment below.
6. The rejection under 35 U.S.C. 102(e) as being anticipated by Nevill (US 2004/0193828) to claims 1-20 is withdrawn in view of applicant's amendment and Examiner's Amendment below.
7. Claims 1, 9, 15, and 19-20 have been amended.
8. Claim 11 has been canceled (See Examiner's Amendment below).
9. Claims 1, 10 and 12-20 have been amended (See Examiner's Amendment below).
10. Claims 1-10 and 12-20 are pending.
11. Claims 1-10 and 12-20 are allowed, renumbered 1-19.

### **EXAMINER'S AMENDMENT**

12. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

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1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rajeev Madnawat (Reg. No. 57,190) on August 9, 2007.

The application has been amended as follows:

**In the Claims:**

Please cancel claim 11; and

Please amend claims 1, 10 and 12-20 as follows:

**Claim 1 (Currently Amended),**

At line 5, after "applying an" insert abstract interpretation

At line 6, after "stack map" insert , wherein during abstract interpretation operation, before execution of an operation of the second bytecode, the operation of the second bytecode is applied in abstract to determine the effect on the first stack map

**Claim 10 (Currently Amended),**

At line 1, after "readable" insert storage

At line 6, after "instructions for", delete [deriving the second stack map from the first stack map by abstract interpretation of the second bytecode; and] and insert deriving a resulting stack map by applying an abstract interpretation operation of the second bytecode to determine

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an effect on the first stack map, wherein during abstract interpretation operation, before execution of an operation of the second bytecode, program instructions for applying the operation of the second bytecode in abstract to determine the effect on the first stack map; program instructions for comparing the resulting stack map with the second stack map; and

At line 8, after “if”, delete [the second stack map is capable of being derived] and insert the resulting stack map matches the second stack map

11. (Canceled)

**Claim 12 (Currently Amended),**

At line 1, after “readable” insert storage

At line 1, after “claim”, delete [11] and insert 10

**Claim 13 (Currently Amended),**

At line 1, after “readable” insert storage

At line 1, after “claim”, delete [11] and insert 10

**Claim 14 (Currently Amended),**

At line 1, after “readable” insert storage

**Claim 15 (Currently Amended),**

At line 1, after “readable” insert storage

**Claim 16 (Currently Amended),**

At line 1, after “readable” insert storage

**Claim 17 (Currently Amended),**

At line 1, after “readable” insert storage

**Claim 18 (Currently Amended),**

At line 1, after “readable” insert storage

**Claim 19 (Currently Amended),**

At line 1, after “readable” insert storage

**Claim 20 (Currently Amended),**

At line 8, after “instructions for” insert deriving a resulting stack map by

At line 8, after “applying an” insert abstract interpretation

At line 9, after “first stack map,” delete [the effected first stack map defining a resulting stack map] and insert wherein during abstract interpretation operation, before execution of an operation of the second bytecode, program instructions for applying the operation of the second bytecode in abstract to determine the effect on the first stack map

**REASONS FOR ALLOWANCE**

13. The following is an examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach, in combination with the other claimed limitations, deriving a resulting stack map by applying an abstract interpretation operation of the second bytecode to determine an effect on the first stack map, wherein during abstract interpretation operation, before execution of an operation of the second bytecode, the operation of the second bytecode is applied in abstract to determine the effect on the first stack map; comparing the resulting stack map with the second stack map; and if the resulting stack map matches the second stack map, removing the second stack map from the class file, the removal of the second stack map operating to reduce the size of the image of the class file as substantially recited in independent claims 1, 10 and 20.

The closest cited prior art, Nevill (US 2004/0193828) teaches a method for providing a stack map associated with first and second bytecode. However, Nevill (US 2004/0193828) fails to teach deriving a resulting stack map by applying an abstract interpretation operation of the second bytecode to determine an effect on the first stack map, wherein during abstract interpretation operation, before execution of an operation of the second bytecode, the operation of the second bytecode is applied in abstract to determine the effect on the first stack map; comparing the resulting stack map with the second stack map; and if the resulting stack map matches the second stack map, removing the second stack map from the class file, the removal of the second stack map operating to reduce the size of the image of the class file as substantially recited in independent claims 1, 10 and 20; and as pointed out by the applicant's remarks/arguments on pg. 11, par. 2 to par. 3.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

14. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Qamrun Nahar  
August 10, 2007

WEI ZHEN  
SUPERVISORY PATENT EXAMINER

